

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-189908
(43)Date of publication of application : 05.07.2002

(51)Int.Cl. G06F 17/60
G06F 13/00
G10K 15/02

(21)Application number : 2000-387866 (71)Applicant : NIPPON TELEGR & TELEPH CORP <NTT>
(22)Date of filing : 20.12.2000 (72)Inventor : MASUDA RYUTA
SAITO RYUICHI
KAWAMURA HIROMASA

(54) DIGITAL CONTENTS RESERVATION AND DELIVERY SYSTEMRECORDING MEDIUM FOR PROGRAM FOR CONTENTS SERVERAND RECORDING MEDIUM FOR PROGRAM FOR DOWNLOADING TERMINAL

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a system for reserving and delivering large-volume digital contents without preparing special user's preparing facilities nor imposing temporal restrictions on the user.

SOLUTION: This system includes a contents server 2 which delivers contentsa reservation terminal 1 which reserves the delivery of the contents to the contents server 2and at least one downloading terminal 4 by which the user receives the reserved contents. Furtherthis system has a downloading terminal management center 3 which manages information regarding the downloading terminal 4 and selects the downloading terminal 4 according to positional information. The contents server 2 obtains the information regarding the downloading terminal 4 at the delivery destination of the contents having positional relation with the reservation terminal 1 and sends the information regarding the downloading terminal 4 back to the reservation terminal 1so that the delivery- reserved contents are delivered to the downloading terminal 4 as the delivery destination.

CLAIMS

[Claim(s)]

[Claim 1]It is a system characterized by comprising the following which carries out

request-to-print-out-files delivery of the digital contents stored in a contents server to a user. It is connected to the above-mentioned contents server via a communications network and information about the above-mentioned download terminal is managed. Have further a download terminal control center which chooses a download terminal connected with a given place in position and the above-mentioned contents server. Information about a download terminal of the address for delivery of digital contents connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal control center. A system constituting so that information about a download terminal of the above-mentioned address for delivery may be replied to a reservation terminal of the above-mentioned request-to-print-out-files origin and digital contents by which the delivery request to print out files was made may be delivered to a download terminal of the above-mentioned address for delivery.

A contents server which delivers digital contents stored in a contents database.
A reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents server.
At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents which reserved using the above-mentioned reservation terminal of a reserving agency and were delivered from the above-mentioned contents server via a communications network.

[Claim 2] A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a user. A position information acquiring means which acquires position information showing a whereabouts place of the above-mentioned reservation terminal. Request-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents server. The 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents server. Provide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above-mentioned contents server. The 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin and transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin. A reservation acceptance processing means to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the

above-mentioned request-to-print-out-files origin and identification information of digital contents from request-to-print-out-files application information which received [above-mentioned] and includes the above-mentioned reservation confirmation information. It is connected to the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications network and the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above A contents address-for-delivery acquisition means which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the above A contents database which accumulated digital contents which can be delivered. It is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents database. Digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database. A contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-mentioned address for delivery is provided. The above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications network. The 4th means of communication that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents server, the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server, information about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal database. Provide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal. The 5th means of communication that receives digital contents which were connected to the above-mentioned contents server via a communications network and in which the delivery request to print out files was

made [above-mentioned] by the above-mentioned contents serverA contents storage means which is connected to the 5th means of communication of the aboveand accumulates digital contents by which the delivery request to print out files was made [above-mentioned]It is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the above-mentioned contents storage means and the above-mentioned reservation confirmation information input meansThe system according to claim 1 which gains digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] from the above-mentioned contents storage meansand possesses a contents download means downloaded to users' medium.

[Claim 3]being connected to the above-mentioned contents server via a communications network -- the above in a predetermined area -- it being connected to one set of a download terminalandeven if smallThe system according to claim 1 which receives digital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents serveraccumulates the above-mentioned digital contentsand has further at least one set of a request-to-print-out-files contents delivery center which transmits the above-mentioned digital contents to a download terminal of the above-mentioned address for delivery.

[Claim 4]A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a userA position information acquiring means which acquires position information showing a whereabouts place of the above-mentioned reservation terminalRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the above-mentioned request-to-print-out-files originand identification information of digital contents from request-to-print-out-files application information which

received [above-mentioned] and includes the above-mentioned reservation confirmation information. It is connected to the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications network and the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above Position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above A contents address-for-delivery acquisition means which acquires information about the above-mentioned address-for-delivery candidate's download terminal and the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the above A contents database which accumulated digital contents which can be delivered. It is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents database. Digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database. A contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is provided. The above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications network. The 4th means of communication that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about the above-mentioned distribution destination candidate's download terminal and a request-to-print-out-files contents delivery center to the above-mentioned contents server every predetermined area -- the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server, information about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal database. Provide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal. The 5th means of

communication that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications network and the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center. It is connected to a reservation confirmation information input means which receives reservation confirmation information from a user and the 5th means of communication of the above and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery center. The system possessing a contents download means downloaded to users' medium according to claim 3.

[Claim 5] The system according to claim 1 connected by communications network provided with a means to notify the above-mentioned contents server of position information which the above-mentioned reservation terminal and the above-mentioned contents server can change into location information of the above-mentioned reservation terminal.

[Claim 6] A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a user. Request-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents server. The 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents server. Provide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above and the above-mentioned contents server. The 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin and position information on a reservation terminal of the above-mentioned request-to-print-out-files origin and transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin. A reservation acceptance processing means to create the above-mentioned reservation acceptance information including the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned] and the above-mentioned position information. The 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications network. It is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above and position information on a reservation

terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-mentioned address for delivery is providedThe above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkThe 4th means of communication that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents serverthe above -- it being connected to a download terminal database which manages position information and state information about one set of a download terminal even if smalland the 4th means of communication of the above and the above-mentioned download terminal databaseandBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal databaseProvide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminalThe 5th means of communication that receives digital contents which were connected to the above-mentioned contents server via a communications networkand in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents serverA contents storage means which is connected to the 5th means of communication of the aboveand accumulates digital contents by which the delivery request to print out files was made [above-mentioned]It is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the above-mentioned contents storage means and the above-mentioned reservation confirmation information input meansThe system according to claim 5 which gains digital contents corresponding to the above-mentioned

reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] from the above-mentioned contents storage means and possesses a contents download means downloaded to users' medium.

[Claim 7] The above-mentioned reservation terminal and the above-mentioned contents server are connected by communications network provided with a means to notify the above-mentioned contents server of position information convertible into location information of the above-mentioned reservation terminal. A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a user. Request-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents server. The 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents server. Provide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above-mentioned contents server. The 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin and position information on a reservation terminal of the above-mentioned request-to-print-out-files origin and transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin. A reservation acceptance processing means to create the above-mentioned reservation acceptance information which includes the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned] and the above-mentioned position information and the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications network. It is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above-mentioned position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above-mentioned contents address-for-delivery acquisition means which acquires information about the above-mentioned address-for-delivery candidate's download terminal and the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the above-mentioned contents database which accumulated digital contents which can be delivered. It is connected to the above-mentioned reservation acceptance processing means and the above-

mentioned contents database Digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database A contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is provided The 4th means of communication that the above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications network receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents server every predetermined area -- the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server Information about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal database Provide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal The 5th means of communication that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications network and the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center It is connected to a reservation confirmation information input means which receives reservation confirmation information from a user and the 5th means of communication of the above and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery center The system possessing a contents download means downloaded to users' medium according to claim 3.

[Claim 8] A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a user A position information input means which receives position information showing an installation area of an

address-for-delivery candidate's download terminal from a userRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information which gains the above-mentioned position information and identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationIt is connected to the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkand the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveThe above-mentioned position information from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe 4th means of communication that the above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkreceives the above-mentioned position

information from the above-mentioned contents server and transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents server every predetermined area -- the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on the above-mentioned position information received from the above-mentioned contents server, information about a download terminal of a request-to-print-out-files contents delivery center in an area relevant to the above-mentioned position information and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal database. Provide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal. The 5th means of communication that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications network and the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center. It is connected to a reservation confirmation information input means which receives reservation confirmation information from a user and the 5th means of communication of the above and the above-mentioned reservation confirmation information input means. Gain digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center and provide a contents download means downloaded to users' medium. The system according to claim 3.

[Claim 9] A contents server which delivers digital contents stored in a contents database. A reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents server. Digital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a user. A procedure of receiving position information on the above-mentioned reservation terminal to a contents name and the above-mentioned reservation terminal. A procedure of searching digital contents corresponding to the above-mentioned contents name from a contents database. Based on position information on the above-mentioned reservation terminal, it is connected to the above-mentioned contents server via a communications network, manage information about the above-mentioned download terminal and the above-mentioned position information is transmitted to a

download terminal control center which chooses a download terminal connected with a given place in positionA procedure which acquires information and reservation acceptance information about a download terminal currently installed in a place which related to a place expressed by the above-mentioned position information in position from the above-mentioned download terminal control centerA procedure which notifies information and the above-mentioned reservation acceptance information about the above-mentioned download terminal to the above-mentioned reservation terminalA recording medium which recorded a command for making a contents server perform a procedure which delivers the above-mentioned digital contents on the address for delivery specified using information about the above-mentioned download terminal and in which computer reading is possible.

[Claim 10]A contents server which delivers digital contents stored in a contents databaseA reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents serverDigital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a userIt is connected to the above-mentioned contents server via a communications networkand information about the above-mentioned download terminal is managedA procedure of receiving reserved information of contents delivery from a download terminal control center which chooses a download terminal connected with a given place in positionReceive digital contents corresponding to reserved information of the above-mentioned contents deliveryreceive an input of a procedure to accumulate and reserved information from a user from the above-mentioned contents serverand out of digital contents accumulated [above-mentioned]. A procedure of searching digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned userA procedure which downloads digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned user to media connectedA recording medium which recorded a command for making a download terminal perform a procedure of deleting digital contents downloaded [above-mentioned] and in which computer reading is possible.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to delivery of digital contents and relates to the system for a request to print out files of mass digital contents delivery and a receipt especially.

[0002]

[Description of the Prior Art] The distribution system of the digital contents to the specific address for delivery which downloads the former for example musical video clip or digital contents like an Electronic Book in a personal computer via the Internet from a contents server has spread widely. A user specifies specific place such as a personal computer installed in the house. Delivery of the digital contents to the specific place is reserved and the request-to-print-out-files distribution system of the digital contents to the specific address for delivery which delivers digital contents to the request-to-print-out-files place as which the contents server was specified is also known.

[0003] A user via the public use type terminal installed in a street a convenience store etc. like what is called a KIOSK terminal as a system by which it sees from a user and the address for delivery is not pinpointed on the other hand. The digital-contents distribution system to the unspecified address for delivery which downloads the contents specified from the contents server to the medium of user possession connected to the public use type terminal is beginning to spread.

[0004]

[Problem(s) to be Solved by the Invention] However a user's equipment for example the digital-contents distribution system to the specific address for delivery like the personal computer installed in a user's house. In the case of the digital-contents request-to-print-out-files distribution system to the specific address for delivery the user cannot receive digital contents by a place where one has gone. In the situation where a mass circuit cannot be used with users' equipment a long time will be covered for download and a circuit will be occupied. On the other hand in order to use the mass circuit for download with users' equipment each user needs to hang great cost such as circuit expense.

[0005] In order to charge the downloaded fee of digital contents certainly to a user in the case of the digital-contents distribution system to the specific address for delivery or the digital-contents request-to-print-out-files distribution system to the specific address for delivery a user needs to notify a user's personal information (for example an address a name a telephone number or a credit card number etc.) to the contents server side. For example even when prepaid card such as a scratch card are used personal information is revealed as address-for-delivery information. However a user may desire to receive digital contents like the time of purchasing goods at a actual shop front without revealing personal information.

[0006] In the case of the distribution system of the digital contents to the unspecified address for delivery like a KIOSK terminal a user When it is necessary to stand by in front of a KIOSK terminal and download of mass digital contents attains to a long time especially after choosing desired digital contents until download of the digital contents is actually completed it is pain for a user.

[0007]A user makes demands for download of desired digital contents on a contents server from a KIOSK terminal (.). Namelyreserve delivery of digital contents and a KIOSK terminal is once leftAfter the completion of download of the digital contents from a contents server to a KIOSK terminalAlthough it is also possible to build the digital-contents request-to-print-out-files distribution system to the unspecified address for delivery which receives the medium which the user visited the KIOSK terminal for the second timeand copied digital contents to the medium of user possession from the KIOSK terminal orby which digital contents were copiedIn the case of such a systemthe user needs to visit the setting position of a KIOSK terminal at least at the time of a request to print out files and a receipt.

[0008]This invention aims at offer of the request-to-print-out-files distribution system of the mass digital contents to the unspecified address for delivery where the user's anonymity was securedwithout burdening a user with time restrictionswithout preparing a special user's equipmentin order to solve the problem of the above-mentioned conventional technology.

[0009]

[Means for Solving the Problem]Drawing 1 is a principle lineblock diagram of this invention which attains the above-mentioned purpose. The contents server 2 with which an invention concerning claim 1 delivers digital contents stored in a contents databaseThe reservation terminal 1 used in order that it may be connected with the above-mentioned contents server 2 via the communications network 6 and a user may reserve delivery of digital contents to the above-mentioned contents server 2At least one-set of download terminal 4₁ used in order that a user may receive the above-mentioned digital contents which reserved using the above-mentioned reservation terminal 1 of a reserving agencyand were delivered from the above-mentioned contents server 2 via the communications network 7It is a system containing 4₂ and ... which carries out request-to-print-out-files delivery of the digital contents stored in the contents server 2 to a userIt is connected to the above-mentioned contents server 2 via the communications network 7and Above-mentioned download terminal 4₁Manage information about 4₂ and ...have further the download terminal control center 3 which chooses the download terminal 4 connected with a given place in positionand the above-mentioned contents server 2Information about the download terminal 4 of the address for delivery of digital contents connected with the reservation terminal 1 of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal control center 3It is the system constituting so that information about the download terminal 4 of the above-mentioned address for delivery may be replied to the reservation terminal 1 of the above-mentioned request-to-print-out-files origin and digital contents by which the delivery request to print out files was made may be delivered to the download terminal 4 of the above-mentioned address for delivery.

[0010]Drawing 2 is a lineblock diagram of a digital-contents request-to-print-out-

files distribution system concerning claim 2. According to the invention concerning claim 2 the above-mentioned reservation terminal 1 The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a user The position information acquiring means 12 which acquires position information showing a whereabouts place of the above-mentioned reservation terminal Request-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents server The 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents server Provide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above and the above-mentioned contents server 2 The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin and transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin A reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the above-mentioned request-to-print-out-files origin and identification information of digital contents from request-to-print-out-files application information which received [above-mentioned] and includes the above-mentioned reservation confirmation information The 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications network It is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above and position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above The contents address-for-delivery acquisition means 23 which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the above The contents database 25 which accumulated digital contents which can be delivered It is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents database Digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database The contents delivering means 26 which transmits digital

contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-mentioned address for delivery is provided. The 4th means of communication 31 that the above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications network receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents server. The above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server, information about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal database. Provide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned download terminal 4. The 5th means of communication 43 that receives digital contents which were connected to the above-mentioned contents server via a communications network and in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server. The contents storage means 44 which is connected to the 5th means of communication of the above and accumulates digital contents by which the delivery request to print out files was made [above-mentioned]. It is connected to the reservation confirmation information input means 41 which receives reservation confirmation information from a user and the above-mentioned contents storage means and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned contents storage means. The contents download means 41 downloaded to users' medium is provided.

[0011] Drawing 3 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claims 3 and 4. An invention concerning claim 3 is connected to the above-mentioned contents server 2 via the communications network 7. The above in a predetermined area -- it being connected to one set of the download terminal 4 and even if small. Digital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server 2 are received. At least one set of the request-to-print-out-files contents delivery center 5 which accumulates the above-mentioned digital contents and transmits the above-mentioned digital contents to the download

terminal 4 of the above-mentioned address for delivery is the system formed for every area.

[0012]According to the invention concerning claim 4the above-mentioned reservation terminal 1The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a userThe position information acquiring means 13 which acquires position information showing a whereabouts place of the above-mentioned reservation terminalRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents server 2The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the above-mentioned request-to-print-out-files originand identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationThe 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents address-for-delivery acquisition means 23 which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents database 25 which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-

print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database. The contents delivering means 26 which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is provided. The 4th means of communication 31 that the above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications network receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents server. every predetermined area -- the above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server, information about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal database. Provide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal 4. The 5th means of communication 43 that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications network and the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center. It is connected to the reservation confirmation information input means 41 which receives reservation confirmation information from a user and the 5th means of communication of the above and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery center. The contents download means 42 downloaded to users' medium is provided.

[0013] Drawing 4 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claims 5 and 6. According to the invention concerning claim 5, the above-mentioned reservation terminal 1 and the above-mentioned contents server 2 are connected by the communications network 6 provided with a means 61 to notify the above-mentioned contents server of position information convertible into location information of the above-mentioned

reservation terminal.

[0014] According to the invention concerning claim 6 the above-mentioned reservation terminal 1 The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a user Request-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents server The 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents server Provide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above and the above-mentioned contents server 2 The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin and position information on a reservation terminal of the above-mentioned request-to-print-out-files origin and transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin A reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information including the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned] and the above-mentioned position information It is connected to the 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications network and the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above Position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above The contents address-for-delivery acquisition means 23 which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the above The contents database 25 which accumulated digital contents which can be delivered It is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents database Digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database The contents delivering means 26 which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-

mentioned address for delivery is provided. The 4th means of communication 31 that the above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications network receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents server. The above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server, information about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal database. Provide the contents address-for-delivery selecting means 322 replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal 4. The 5th means of communication 41 that receives digital contents which were connected to the above-mentioned contents server via a communications network and in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server. The contents storage means 44 which is connected to the 5th means of communication of the above and accumulates digital contents by which the delivery request to print out files was made [above-mentioned]. It is connected to the reservation confirmation information input means 41 which receives reservation confirmation information from a user and the above-mentioned contents storage means and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned contents storage means. The contents download means 42 downloaded to users' medium is provided.

[0015] Drawing 5 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claim 7. According to the invention concerning claim 7 it is connected to the above-mentioned contents server 2 via the communications network 7 the above in a predetermined area -- it being connected to one set of the download terminal 4 and even if small. Digital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server 2 are received. Accumulate the above-mentioned digital contents and the request-to-print-out-files contents delivery center 5 which transmits the above-mentioned digital contents to the download terminal 4 of the above-mentioned address for delivery is formed. The above-mentioned reservation terminal 1 and the above-mentioned contents server 2. It is connected by the communications network 6 provided with a means 61 to notify the above-

mentioned contents server of position information convertible into location information of the above-mentioned reservation terminal and the above-mentioned reservation terminal 1. The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a user. Request-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents server. The 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents server. Provide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above and the above-mentioned contents server 2. The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin and position information on a reservation terminal of the above-mentioned request-to-print-out-files origin and transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin. A reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information including the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned] and the above-mentioned position information. The 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications network. It is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above and position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above. The contents address-for-delivery acquisition means 23 which acquires information about the above-mentioned address-for-delivery candidate's download terminal and the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the above. The contents database 25 which accumulated digital contents which can be delivered. It is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents database and digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database. The contents delivering means 26 which transmits digital contents by

which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is provided. The above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications network. The 4th means of communication 31 that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents server and transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents server every predetermined area -- the above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents server, information about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal database. Provide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal 4. The 5th means of communication 43 that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications network and the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center. The reservation confirmation information input means 41 which receives reservation confirmation information from a user. It is connected to the 5th means of communication of the above and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery center. The contents download means 42 downloaded to users' medium is provided.

[0016] Drawing 6 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claim 8. According to the invention concerning claim 8 it is connected to the above-mentioned contents server 2 via the communications network 7 the above in a predetermined area -- it being connected to one set of the download terminal 4 and even if small. Digital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server 2 are received. Accumulate the above-mentioned digital contents and the above-mentioned digital contents are provided by the request-to-print-out-files contents delivery center 5 which transmits to the

download terminal 4 of the above-mentioned address for delivery and then the above-mentioned reservation terminal 1. The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a user. The position information input means 15 which receives position information showing an installation area of an address-for-delivery candidate's download terminal from a user. Request-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents server. The 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents server. Provide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the above and the above-mentioned contents server receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files origin. The 2nd means of communication 21 that transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files origin. A reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information which gains the above-mentioned position information and identification information of digital contents from request-to-print-out-files application information which received [above-mentioned] and includes the above-mentioned reservation confirmation information. The 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications network. It is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the above and the above-mentioned position information from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the above. The contents address-for-delivery acquisition means 23 which acquires information about the above-mentioned address-for-delivery candidate's download terminal and the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the above. The contents database 25 which accumulated digital contents which can be delivered. It is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents database and digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents database. The contents delivering means 26 which transmits digital contents by

which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is provided. The above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications network. The 4th means of communication 31 that receives the above-mentioned position information from the above-mentioned contents server and transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents server every predetermined area -- the above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the above and the above-mentioned download terminal database. Based on the above-mentioned position information received from the above-mentioned contents server, information about a download terminal of a request-to-print-out-files contents delivery center in an area relevant to the above-mentioned position information and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal database. Provide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the above and the above-mentioned Download terminal 4 is connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications network. The 5th means of communication 43 that receives digital contents by which the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery center. The reservation confirmation information input means 41 which receives reservation confirmation information from a user. It is connected to the 5th means of communication of the above and the above-mentioned reservation confirmation information input means and digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery center. The contents download means 42 downloaded to users' medium is provided.

[0017] A contents server with which an invention concerning claim 9 delivers digital contents stored in a contents database. A reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents server. Digital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a user, a procedure of receiving position information on the above-mentioned

reservation terminal to a contents name and the above-mentioned reservation terminalA procedure of searching digital contents corresponding to the above-mentioned contents name from a contents databaseBased on position information on the above-mentioned reservation terminalit is connected to the above-mentioned contents server via a communications networkmanage information about the above-mentioned download terminaland the above-mentioned position information is transmitted to a download terminal control center which chooses a download terminal connected with a given place in positionA procedure which acquires information and reservation acceptance information about a download terminal currently installed in a place which related to a place expressed by the above-mentioned position information in position from the above-mentioned download terminal control centerA procedure which notifies information and the above-mentioned reservation acceptance information about the above-mentioned download terminal to the above-mentioned reservation terminalIt is the recording medium which recorded a command for making a contents server perform a procedure which delivers the above-mentioned digital contents on the address for delivery specified using information about the above-mentioned download terminal and in which computer reading is possible.

[0018]A contents server with which an invention concerning claim 10 delivers digital contents stored in a contents databaseA reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents serverDigital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a userIt is connected to the above-mentioned contents server via a communications networkand information about the above-mentioned download terminal is managedA procedure of receiving reserved information of contents delivery from a download terminal control center which chooses a download terminal connected with a given place in positionReceive digital contents corresponding to reserved information of the above-mentioned contents deliveryreceive an input of a procedure to accumulate and reserved information from a user from the above-mentioned contents serverand out of digital contents accumulated [above-mentioned]. A procedure of searching digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned userA procedure which downloads digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned user to media connectedIt is the recording medium which recorded a command for making a download terminal perform a procedure of deleting digital contents downloaded [above-mentioned] and in which computer reading is possible.

[0019]

[Embodiment of the Invention]Nextan embodiment of the invention is described. This invention reserves download of mass contents from a portable telephone a public telephone etc. and relates to the system which receives mass contents in the nearby specific places (for example specific public telephone etc.) of a street corner.

[0020]According to this invention a digital-contents request-to-print-out-files distribution system The reservation terminal which can acquire position information and performs the contents delivery request to print out files by a user By managing the contents server which delivers the contents required of the download terminal from the reservation terminal the setting position of a download terminal an availability a working state etc. The download terminal control center which tells a contents server about the download terminal in which the contents delivery near the reservation terminal is possible It is constituted by at least one set of the contents storage means which saves the contents which received from the contents server and the download terminal which copies the contents saved at the contents storage means at the user's media according to a user's demand.

[0021]The reservation terminal which consists of immobilization which can acquire the position information on (1) presenter or a portable communication terminal in this system is used Specify the digital contents reserved by connecting with a contents server through a line switching network the Internet etc. and (2) contents servers If the position information on the reservation terminal as the identification number of the contents for request-to-print-out-files delivery and position information on the address for delivery is acquired Transmit address-for-delivery position information etc. to a download terminal control center and an identification number installation place information etc. of a download terminal of the address for delivery which were specified from information including the setting position of (3) download terminals a working state etc. are acquired from a download terminal control center (4) Notify the installation place information of the acquired download terminal to a reservation terminal and contents can be delivered to the contents storage means connected to the download terminal -- (5) -- thereby a user In the download terminal installed in the setting position notified to the reservation terminal the delivered contents saved at the contents storage means are copied to a user's media.

[0022]The above-mentioned contents storage means can be provided in a download terminal. In this case the reservation terminal which consists of immobilization which can acquire the position information on (1) presenter or a portable communication terminal in this system is used Specify the digital contents reserved by connecting with a contents server through a line switching network the Internet etc. and (2) contents servers If the position information on the reservation terminal as the identification number of the contents for request-to-print-out-files delivery and position information on the address for delivery is acquired by transmitting address-for-delivery position information etc. to a download terminal control center. (3) Acquire an identification number installation place information etc.

of a download terminal of the address for delivery which were specified from information including the setting position of a download terminal a working state etc. from a download terminal control center at the time of a contents delivery request to print out files (4) Notify the installation place information of the acquired download terminal to a reservation terminal and, contents can be delivered to the download terminal of the acquired identification number -- (5) -- thereby a user In the download terminal installed in the setting position notified to the reservation terminal the delivered contents saved in the download terminal are copied to a user's media.

[0023] It is possible to provide the request-to-print-out-files contents delivery center connected with the download terminal in the high-speed network and to accommodate a contents storage means in this request-to-print-out-files contents delivery center. In this system (1) contents storage means is provided in a request-to-print-out-files contents delivery center and the reservation terminal which consists of immobilization which can acquire the position information on (2) presenter or a portable communication terminal is used Specify the digital contents reserved by connecting with a contents server through a line switching network the Internet etc. and (3) contents servers If the position information on the reservation terminal as the identification number of the contents for request-to-print-out-files delivery and position information on the address for delivery is acquired by transmitting address-for-delivery position information etc. to a download terminal control center. (4) The identification number and the local specific information of a request-to-print-out-files contents delivery center of the address for delivery which were specified using the area-of-responsibility information on the request-to-print-out-files contents delivery center shared in a specific area Acquire the installation place information etc. of the download terminal accommodated in the high-speed network in the area from a download terminal control center and notify (5) area specific information and the installation place information of a download terminal to a reservation terminal and, delivering contents to the request-to-print-out-files contents delivery center of the acquired identification number -- (6) -- a user being requiring contents of a request-to-print-out-files contents delivery center and from a download terminal thereby The contents delivered in the request-to-print-out-files contents delivery center can be transmitted to a download terminal using the high-speed network in the area and it can copy to a user's media.

[0024] Or a reservation terminal may specify a contents receipt location and it may constitute it so that it may send out. In this system a reservation terminal is a reservation terminal which can specify the area and position which receives the present not position information but contents and can transmit and can opt for contents delivery based on the specified position.

[0025] User ID may be inputted into a reservation terminal at the time of a request to print out files user ID may be inputted into a download terminal at the time of a receipt and a user may be specified. In this system at the time of (1) request to print out file transmit to a contents server and user ID from a reservation terminal (2) contents servers When user ID is delivered with contents in a download

terminal or the request-to-print-out-files contents delivery center and (3) users input user ID in the case of the receipt of contents(4) A download terminal or the request-to-print-out-files contents delivery center can check whether user ID is compared and a just subscriber is try to perform the receipt of contents.

[0026]By equipping a reservation terminal and a download terminal with a card readerit is possible to use card ID instead of user IDand to check a subscriber by inserting a card in a card reader.

[0027]Hereafterwith reference to an accompanying drawingvarious examples of this invention are described in detail.

[0028]Drawing 7 is a lineblock diagram of the digital-contents distribution system by the 1st example of this invention. As shown in the figurethe system of this example is constituted by the reservation terminal 1the contents server 2the download terminal control center 3two or more download terminals 4and the user media 9.

[0029]The reservation terminal 1 is a terminal which specifies contents to access the contents server 2 and perform request-to-print-out-files download to. This reservation terminal 1 is a terminal which that current position can acquire from the contents server 2. As such a reservation terminal 1PHSa portable telephone with GPSa public telephone with position informationa general telephone set (the notified sender number to position information acquisition is possible)a personal computer (position information transmitting-function use)etc. can be usedfor example.

[0030]The reservation terminal 1 is provided with the following.

The input part 16 which are input devicesuch as a connections set to a contents servera keyboard for performing the input from userssuch as contents specificationa dial button.

The communications department 14 which is a network interface (for examplethe interface for line switching networkthe interface for the Internetor other communication interfaces) for connecting with the contents server 2.

The outputting part 17 which outputs the data of the position of the menu of the contents acquired from the contents server 2a confirmation numberand the download terminal 4etc. with a displaya soundetc.

[0031]The reservation terminal 1 is a portable telephone with GPSetc.and in performing the detecting position of a self-terminal independently and performing position information to the contents server 2the reservation terminal 1 possesses the position detectors 13such as a GPS device which detects the position information on the reservation terminal 1. When the reservation terminals 1 are built-in endssuch as a public telephone and an Internet terminaland it is a terminal of the type which cannot perform reference-by-location profit from the exteriorthe position detector 13The position information on a self-terminal is held and the contents server 2 is notified of the position information currently held at the time of connection with the contents server 2. The reservation terminal 1 like the general telephone set which can acquire position informationsuch as a sender

number of a terminal from the exterior using an addresser telephone number notice function does not have the necessity of providing the position detector 13.

[0032]The contents server 2 is a server which a contents providing agent holds and by connection from the reservation terminal 1. Receive a request to print out files of contents delivery acquire the position of a reservation terminal transmit to the download terminal control center 3 and the position of content size and a reservation terminal by this. The contents which received the request to print out files from the download terminal control center 3 to the replied nearby download terminal 4 are delivered with a confirmation number.

[0033]The contents server 2 notifies installation place information a confirmation number etc. of the download terminal 4 which were received from the download control center 3 to the reservation terminal 1 at the time of a request to print out files. The contents server 2 may transmit a delivery completion notification to the reservation terminal 1 at the time of the end of contents delivery.

[0034]The contents server 2 may be realized with the gestalt installed for every contents providing agent and the gestalt in which only one server of representation is installed.

[0035]The contents server 2 has the following.

The position acquisition part 26 which acquires the position information on the reservation terminal 1.

The control section 27 which controls operation of a series such as receiving the request to print out files from the reservation terminal 1 acquiring the information on the download terminal 4 as the contents address for delivery from a download terminal control center and performing contents delivery to the download terminal 4.

Communications department (1) 21 which is an interface for performing communication with the reservation terminal 1.

Communications department (2) 24 which are an interface for performing communication with the download terminal control center 3 and the download terminal 4 and the contents database 25 which accumulates the contents for delivery.

[0036]Drawing 8 is a figure explaining an example of the structure of the contents database 25 used through explanation of various examples of this invention. As shown in the figure the contents database 25 includes a contents name content size and the field holding a contents file.

[0037]the contents server's 2 position acquisition part 26 -- a terminal [like a portable telephone with GPS] whose reservation terminal 1 is -- or In being a terminal like built-in end such as a public telephone and an Internet terminal of a cover half Position information is acquired from the reservation terminal 1 and when the reservation terminal 1 is a terminal like a general telephone set based on the sender number acquired from the line switching network 6 the position of the reservation terminal 1 is acquired using a telephone number-position information translation table.

[0038]The download terminal control center 3 Management of a download terminal. For example setting position management contents accumulating part capacity management task management or status management is performed From the content size and position information which were received from the contents server 2. It exists in nearby [of the specified position] and the downloadable download terminal 4 which fulfills conditions like there is an availability for content size is chosen and the contents server 2 is notified of the selected identification number of the download terminal 4 and installation place information and a confirmation number.

[0039]The download terminal control center 3 which manages the download terminal 4 is provided with the following.

The communications department 31 which performs communication with the contents server 2.

The download terminal database 33 which saves the setting position of all the download terminal the availability of a contents accumulating part a state (failure) etc.

The contents delivery selecting part 32 which specifies the download terminal of the address for delivery using the download terminal database 33 from the position information acquired from the contents server 2 and content size.

[0040]Drawing 9 is an explanatory view of an example of the structure of the download terminal database 33 by the 1st example of this invention. As shown in the figure the download terminal database 33 Address-for-delivery access information Including the field holding the availability and state of a setting position and a contents accumulating part especially in this example. Status such as a failure condition of a terminal are contained in a connection name [meaning / for connecting with a download terminal in the address-for-delivery access information field] and the setting position field in the number of the availability by a byte unit and the Status field at latitude longitude and the availability field of the contents accumulating part.

[0041]Although the download terminal 4 is a wide area like the Internet it considers the case where reservation of a broadband is connected with the contents server 2 via the difficult network 7. The download terminal 4 holds contents and the confirmation number which were transmitted by the contents server 2 and copies the target contents to user media out of the contents accumulated by a user's operation.

[0042]It assumes that many download terminals 4 are installed in public places such as a street a convenience store or a station yard.

[0043]The download terminal 4 is provided with the following.

The input parts 45 such as a keyboard for a user to input a confirmation number etc. or a button.

The contents accumulating part 44 which accumulates the contents etc. which were transmitted by the contents server 2.

Communication 43 which performs communication with the communications

department which performs communication with the contents server 2 and the download terminal control center 2.

The download part 42 which is an interface for copying the contents accumulated in the contents accumulating part 44 to user mediaThe control section 46 which controls copying the target contents to user media out of the contents which received delivery of the contents from the contents server 2and were accumulated according to a user's operation etc.

[0044]Drawing 10 is an explanatory view of an example of the structure of the contents accumulating part 44 by the 1st example of this invention. As shown in the figurethe contents accumulating part 44 includes the field where a confirmation numbera contents namecontent sizea contents filea contents server nameand a contents loaded state are saved.

[0045]The user media 9 are information media for a user to bring contents homememoriessuch as MOCD-RDVDa hard diskand CompactFlash (registered trademark)-- orThe PDA terminal provided with the memory and the high speed interface etc. may be sufficientand the medium which can be written on at high speed than transmission of the network 7 course between contents server download terminals is desirable.

[0046]The connection between the user media 9 and the download terminal 4The serial/parallel interface by a point of contactan infrared ray interfacea wireless interfaceor other interfaces realizeand the interface which can communicate at high speed is more desirable than between contents server download terminals.

[0047]Nextoperation of the system by the 1st example of this invention is explained with reference to the message sequence chart shown in drawing 11.

[0048]Firstthe operation at the time of a request to print out files of this system shown by Step 15 from Step 1 of the timing chart is explained.

[0049]In "contents selection" of Step 1the user who reserves contents delivery specifies the contents reserved using the input part of a reservation terminaland connection is made to a contents server from a reservation terminal in "connection" of Step 2. Contents may be specified that a user inputs a contents name by a keyboard etc.or by choosing it as beforehand from the list of contents names acquired with the reservation terminal.

[0050]When reservation terminals are telephonessuch as a portable telephonePHSa public telephoneand a general telephone setconnectionIt realizes by carrying out call origination to a contents server's telephone numberand when a reservation terminal is an Internet terminalit accesses using a contents server's server namean IP addressetc.

[0051]If a contents server is connected with a reservation terminala contents name with selected "contents selection" will be transmitted to a contents server from a reservation terminal by "contents specification (position information / terminal ID)" of Step 3. When a reservation terminal is a terminal which performs a detecting position independently at this timeOr reservation terminals are built-in endssuch as a public telephone and an Internet terminaland when position

information is being stored by the position detector a reservation terminal transmits both the position information detected with the reservation terminal and the position information accumulated to a contents server. When reservation terminals are reservation terminals (a general telephone set a PHS terminal etc. which perform the notice of a sender number) which can perform a detecting position by the contents server side Transmission of the position information from a reservation terminal to a contents server is not performed but terminal ID (ID used as the key of a detecting position for example a telephone number an IP address etc.) of a reservation terminal is passed by the notice of a sender number etc.

[0052] A contents server acquires the position information on a reservation terminal by "reference-by-location profit" of Step 4 after "contents specification" is performed from a reservation terminal. When a contents server uses the received position information as it was when position information is received from a reservation terminal and position information is not received position information is detected from the telephone number etc. of the reservation terminal gained by the notice of a sender number etc.

[0053] A contents server searches the content size and the contents file corresponding to the contents name with "content retrieval" of Step 5 from a contents database by using as a key the contents name received by "contents specification."

[0054] Next by the "contents address-for-delivery information requirements" of Step 6 a contents server The content size corresponding to the contents server name which specifies a self-server the position information acquired by "position information" and the contents name searched with "content retrieval" is transmitted to a download terminal control center and specification of the optimal download terminal for contents delivery is required.

[0055] If a download terminal control center receives "contents address-for-delivery information requirements" it will be "contents address-for-delivery search" of Step 7 and the optimal download terminal will be determined from the position information received from the contents server and content size. The example of search of the optimal download terminal is later mentioned in explanation of a download terminal control center of operation.

[0056] A download terminal control center generates a confirmation number by "confirmation number generation" of Step 8 following "contents address-for-delivery search." The number which a confirmation number is a request-to-print-out-files identification number expressed in a meaning number etc. for example is generated from a serial number time etc. is used.

[0057] A download terminal control center is Step 9 when a download terminal is determined by "contents address-for-delivery search" and a confirmation number is generated by "confirmation number generation" The contents server name of a delivering agency content size and a confirmation number are transmitted as contents delivery permit information at a step to the determined download terminal.

[0058]If contents delivery permit information is received in "delivery permit information preservation" of Step 10a download terminal will save the contents server name of a delivering agency content size and a confirmation number at a contents accumulating part and will change the state of a download terminal into an authorized state.

[0059]A download terminal control center transmits the address-for-delivery access information which is a connection name of the determined download terminal the installation place information of a download terminal and the generated confirmation number to a contents server in the "contents address-for-delivery information" on Step 11.

[0060]A download terminal control center is decreased by the size of the contents which it is [contents] "renewal of terminal DB" of Step 12 and should have "the availability of a contents accumulating part" of a download terminal database delivered after transmission of "contents address-for-delivery information" is completed.

[0061]In [if a contents server gains address-for-delivery access information installation place information and a confirmation number for the "contents address-for-delivery information" on Step 11] Step 13 The installation place information of a confirmation number and a download terminal is transmitted to a reservation terminal as "reserved information" and communication with a reservation terminal is ended at Step 14.

[0062]A reservation terminal will express this reserved information to the display for indication of an outputting part etc. as Step 15 if the reserved information which consists of installation place information of a confirmation number and a download terminal at Step 13 is acquired. Preferably a surrounding map may be displayed presenting of installation place information may be performed in a form which attaches a mark to the position which corresponds to the setting position of a download terminal on the map and the guidance map showing the course from the current position of a reservation terminal to the setting position of a download terminal may be used for it more preferably. or [for this reason/ that a contents server transmits the map which generated the map including the setting position of a download terminal and was generated as installation place information of a download terminal to a reservation terminal] -- or A reservation terminal creates the surrounding map showing a setting position from the setting position of the download terminal acquired in form such as latitude longitude.

[0063]At Step 15 the operation at the time of a request to print out files of the system by the 1st example is completed from the above step 1. Next the operation at the time of delivery of this system is explained.

[0064]The address-for-delivery access information which is a connection name of the download terminal whose contents server is the address for delivery In [if a confirmation number the content size of the contents which should be delivered and ready for a contents file] Step 16 By address-for-delivery access information connect with the download terminal of the address for delivery specified and by then the "contents delivery request" of Step 17. A download

terminal is asked for permission of contents delivery by transmitting the contents server name, the content size and the confirmation number which specify a self-server.

[0065] If a contents delivery request is received, a download terminal in the record which was already received and was accumulated in the contents accumulating part in the "contents delivery authorization verification" of Step 18. The record in which a contents server name, content size and a confirmation number are in agreement and the state is set as "permission" is searched. And when a download terminal detects the record in which all the items correspond, when it inspects whether there are any other contents under delivery (namely, state which is after delivery permission and has not carried out the completion of delivery yet) at the time and another contents under delivery do not exist, contents delivery permission is replied to a contents server at Step 19. When another contents under delivery exists, the stands by and follows the completion of delivery of another contents under delivery to "contents delivery permission" of Step 19 after the completion of delivery, for example. On the other hand, when the record in which all the items correspond cannot be detected, contents delivery refusal is replied at Step 19.

[0066] In "contents delivery" of Step 20, a contents server will transmit the contents containing a contents name and a contents file to a download terminal if "contents delivery permission" is received from a download terminal.

[0067] The download terminal which received contents from the contents server. The contents name and contents file which received by "contents storage" of Step 21. It saves on the record in the contents accumulating part by which the position of all the items was checked by contents delivery authorization verification and when all contents are delivered and accumulated (i.e. when the state of the completion of delivery is reached), communication with a contents server is cut at Step 22.

[0068] In option, in Step 23, it may connect with a reservation terminal and a contents server may notify a reservation terminal that contents delivery was completed by the "end of delivery" of Step 24 and at the time of the completion of contents delivery, he may constitute so that communication with a reservation terminal may be cut at Step 25. At this time, in Step 26, a reservation terminal displays the confirmation number etc. which were notified on the display for indication of an outputting part and transmits them to a user, for example.

[0069] Next, operation of the contents server by the 1st example of this invention is explained with reference to the flow chart shown in drawing 12.

[0070] At Step 31, a contents server stands by the connection from a reservation terminal. By "the contents name, the position information / terminal ID acquisition" of Step 32, acquire after connection the contents name of the delivery booking object transmitted from the reservation terminal and depending on in addition the case, Terminal ID of a reservation terminal convertible into place information such as position information and latitude longitude which more specifically expresses the place of a reservation terminal or place information is acquired. A telephone

number and IP address etc. used as the key of a detecting position are included in terminal ID of a reservation terminal for example.

[0071] When it judges whether position information is included in the information transmitted from the reservation terminal and information convertible into position information such as terminal ID instead of the position information itself is received at Step 33, at Step 34 position information is acquired from terminal ID of a reservation terminal and it progresses to Step 35. When a reservation terminal is a general telephone set, it can change into position information from terminal ID using the database holding the correspondence relation between a telephone number and position information. It is possible to acquire the position information on a base station by asking a position information center etc. the position of PHS when a reservation terminal is PHS. When a reservation terminal is an Internet terminal, it can change into position information from terminal ID using the database holding the correspondence relation between an IP address and position information.

[0072] When position information is included in the information transmitted from the reservation terminal at Step 33, it progresses to Step 35 as it is.

[0073] A contents server searches corresponding contents (a contents name and a contents file) from a contents database by using the received contents name as a key in "content retrieval" of Step 35.

[0074] Next, the contents server name which a contents server progresses to Step 36 and specifies a self-server. The position information on a reservation terminal, the address-for-delivery access information which is the connection names of the download terminal which transmits content size to a download terminal control center, and serves as the address for delivery of contents, installation place information, and a confirmation number are received from a download terminal control center. The setting position (for example, latitude longitude) of the download terminal currently held in the download terminal control center may be sufficient as installation place information, and the map containing a download terminal may be sufficient as it, or the navigation information of the course guidance figure from a reservation terminal to a download terminal setting position may be sufficient as it.

[0075] Next, a contents server is Step 37, and if the setting position and confirmation number of a download terminal which were acquired are notified to a reservation terminal and a notice is completed, he will cut communication with a reservation terminal at Step 38.

[0076] After a contents server is completed [communication with a reservation terminal], in order that the contents which progressed to Step 39 and were specified from the reservation terminal may be transmitted to a download terminal, it connects with a download terminal using the address-for-delivery access information which is a connection name of the acquired download terminal, and a confirmation number is transmitted to a download terminal and delivery permission is required as the contents server name which specifies a self-server and content size.

[0077] At Step 40, a contents server judges whether the message of delivery

permission was obtained from the download terminal. In the step 42 when the message of delivery permission is obtained after progressing to Step 41 delivering the contents name and contents file for delivery to a download terminal and cutting connection with a download terminal after the end of delivery. It connects with a reservation terminal the message of the end of delivery is transmitted to a reservation terminal and a series of processings are ended.

[0078] When the message of delivery permission is not obtained from a download terminal at Step 40a contents server. It progresses to Step 43 and judges whether the message of delivery refusal was obtained from the download terminal and when it is a message of delivery refusal a contents server progresses to Step 44 performs error handling such as performing a distribution impossible notice to a reservation terminal and ends a series of processings. It is Step 43 and when judged with the message of delivery refusal not being obtained from a download terminal a contents server returns to Step 40 and he stands by until the message of delivery permission or delivery refusal is obtained from a download terminal.

[0079] Next operation of the download terminal control center by the 1st example of this invention is explained with reference to the flow chart shown in drawing 13.

[0080] A download terminal control center is Step 51 and it is judged whether there are any contents address-for-delivery information requirements from a contents server. When judged with there being contents address-for-delivery information requirements it progresses to Step 52 and the contents server name which specifies a contents server the position information on a reservation terminal and content size are received from a contents server.

[0081] Next a download terminal control center chooses "optimum" download terminal in "contents address-for-delivery search" of Step 53 using the position information the content size and the download terminal database of the reservation terminal received by the contents address-for-delivery selecting part. Here the other methods may be used although it is possible to use the method of following the following procedure 1. - 3. as an example of the selection standard of "optimum" download terminal. 1. "The availability of a contents accumulating part" saved in the download terminal database takes out a larger download terminal than content size. 2. Take out the download terminal where a state is breaking down and which is not in the download terminal taken out by 1. 3. From the download terminals taken out by 2. calculate the slant range of the position information on a reservation terminal and the setting position of a download terminal and choose the download terminal which is most close to a reservation terminal as an optimal download terminal.

[0082] In Step 54a download terminal control center generates the meaning number over this contents delivery request to print out files after selection of the optimal download terminal is completed next. The number generated as a meaning number combining a serial number the time the contents name the download terminal etc. which are managed in a download terminal control center for example may be sufficient.

[0083] Then when a download terminal control center transmits a contents server

namecontent sizeand the generated confirmation number to the selected download terminal in Step 55It directs to permit delivery of the contents corresponding to the content size and the confirmation number which were specified from the contents server name as which the download terminal was specified.

[0084]A download terminal control center notifies to a contents server that the generated confirmation numbers are the address-for-delivery access information which is a connection name of the selected download terminaland the installation place information of a download terminal in the following step 56.

[0085]In Step 57a download terminal control center subtracts a part for content size from "the availability of a contents accumulating part" about the selected download terminal in a download terminal databaseand updates a database.

[0086]In Step 51when judged with their not being address-for-delivery information requirementshe follows a download terminal control center to Step 58and it is judged whether it is the deletion report from a download terminal. When judged with it being a deletion reporta download terminal control centerIt progresses to Step 59the content size of the deleted contents which are sent from a download terminal is acquiredand a part for the content size deleted within the download terminal database at Step 60 by the "availability of the contents accumulating part" corresponding to this download terminal is added.

[0087]When judged with it not being a deletion report at Step 58a download terminal control center returns to Step 51.

[0088]Nextoperation of the download terminal by the 1st example of this invention is explained with reference to the flow chart shown in drawing 14.

[0089]A download terminal is Step 71 and it is judged whether there was any delivery permission specification from a download terminal control centerWhen judged with there having been delivery permission specificationprogress to Step 72acquire a contents server namecontent sizeand a confirmation numberand at Step 73. A contents server namecontent sizeand a confirmation number are added to the record of a contents accumulating parta "state" is changed into an authorized stateand processing is ended.

[0090]When judged with it not being delivery permission specification at Step 71it is judged whether it progressed to Step 74and was connected by the contents serverand processing had a contents delivery request. When judged with the contents delivery request having occurred from the contents serverprocessing progresses to Step 75 and acquires the contents server namethe content sizeand the confirmation number which were received from the contents server.

[0091]Nextfrom the record which a download terminal is Step 76 and is held at the contents accumulating part. The record in which it agrees with the contents server namethe content sizeand the confirmation number which were acquired from the contents server at Step 75and the "state" is set as the authorized state is searched. It judges whether the record which fulfills conditions existsand at Step 77in not existingit progresses to Step 78and processing transmits the message of delivery refusal to a contents serverand it completes it.

[0092]When judged with the record which fulfills conditions by Step 77

existing processing progresses to Step 79 and a download terminal the resource (for example a network and a memory.) for receiving contents. It inspects whether the standard for being in a ready-for-receiving ability state with the sufficient efficiency of disk storage capacity central-processing-unit time etc. being secured is fulfilled and when judged with it not being in a ready-for-receiving ability state it returns to Step 79 and it stands by until a resource is secured and it will be in a ready-for-receiving ability state.

[0093] When judged with it being in a state receivable at Step 79 processing progresses to Step 80 and transmits the message of contents delivery permission to a contents server.

[0094] Then in Step 81 a download terminal receives the contents which contain a contents name and a contents file from a contents server progresses to Step 82 and in a contents accumulating part the contents name and contents file which received from the contents server are accumulated in the record judged that has agreed at Step 76 a "state" is changed into storage states and processing is ended.

[0095] It is judged whether at Step 74 when judged with there having been no contents delivery request processing of a download terminal progressed to Step 83 and user media were connected. When judged with user media having been connected at Step 83 processing progresses to Step 84 the input of the confirmation number from the user through input part such as a keyboard is received and the confirmation number followed and inputted into Step 85 is searched from a contents accumulating part.

[0096] Next it is judged whether processing progresses to Step 86 the confirmation number compared with the confirmation number from a user is found in it and corresponding contents are accumulated (that is does the record in which the "state" is set as storage states exist or not?). When judged with contents being accumulated processing progresses to Step 87 and writes the contents corresponding to a confirmation number in user media. After a write end processing notifies that progressed to Step 88 and deleted the record currently held in the contents accumulating part in relation to this confirmation number and are Step 89 and the record was deleted to a download terminal control center and ends a series of processings.

[0097] In Step 86 when judged with the contents which the confirmation number compared with the confirmation number from a user is not found or correspond not existing processing progresses to Step 90 performs the display of an error message etc. and ends a series of processings.

[0098] Drawing 15 is a line block diagram of the digital-contents distribution system by the 2nd example of this invention. As shown in the figure the system of this example is constituted by the reservation terminal 1 the contents server 2 the download terminal control center 3 the request-to-print-out-files contents distribution system 5 installed for every area two or more download terminals 4 and the user media 9. One area is shown by the solid line 100 in the figure.

[0099] In the system of this example the contents server 2 Digital contents are not directly delivered to the download terminal 4 The download terminal which delivers

to the request-to-print-out-files contents delivery center 5 and downloads digital contents to user media differs from the system by the 1st example with an above-mentioned point connected to the request-to-print-out-files contents delivery center 5 via the high-speed network 8 in the area.

[0100]The installation place information of the download terminal notified by the contents server 2 operation of the reservation terminal 1 by the 2nd example Although it is different from operation of the reservation terminal 1 by the 1st example at the point which is the information about one set of a specific download terminal and two or more download terminals in the same area in respect of others it is the same. Therefore detailed explanation about operation of the reservation terminal 1 is not given.

[0101]Operation of the contents server 2 by the 2nd example The point that it is the information about two or more download terminals which have the installation place information of the download terminal acquired from the download terminal control center 3 in the same area Although the address-for-delivery access information which is an initial entry of the contents address for delivery is different from operation of the contents server 2 by the 1st example in that it is not the connection name of a download terminal but a connection name of a request-to-print-out-files contents delivery center in respect of others it is the same. Therefore the detailed explanation beyond this about operation of the contents server 1 is omitted.

[0102]Hereafter operation of the download terminal control center 3 by the 2nd example of this invention the request-to-print-out-files contents delivery center 5 and the reservation terminal 4 is explained in detail.

[0103]The download terminal control center 3 of the 2nd example is provided with the following.

The communications department 31 which performs communication with the contents server 2 like the case of the 1st example.

Download terminal database 33.

Contents delivery selecting part 32.

[0104]Drawing 16 is an explanatory view of an example of the structure of the download terminal database 33 by the 2nd example of this invention. The download terminal database 33 The delivery access information field Including the area name field and the download terminal setting position field in the address-for-delivery access information field. Name such as an address showing the area range where the download terminal corresponding to a request-to-print-out-files contents delivery center is installed in a connection name [meaning / for connecting with a request-to-print-out-files contents delivery center] and the area name field The setting position of the download terminal connected to the corresponding request-to-print-out-files contents delivery center is stored in the download terminal setting position field in the form of latitude longitude.

[0105]Although the request-to-print-out-files contents delivery center 5 is installed for every area where the high-speed type network 8 was constructed and

it is one side and is connected with the download terminal 4 via this high-speed type network 8 it is another side and it is wide area type such as the Internet. The case where reservation of a broadband is connected to the contents server 2 via the difficult network 7 is considered. The request-to-print-out-files contents delivery center 5 accumulates contents and the confirmation number which were transmitted by the contents server 2 and carries out the redistribution of the corresponding contents to the download terminal 4 according to the demand from the download terminal 4.

[0106] The request-to-print-out-files contents delivery center 5 is provided with the following.

The communications department 51 which communicates with the contents server 2 and the download terminal 4.

The contents accumulating part 52 constituted by the memory which accumulates the contents etc. which were received from the contents server 2.

[0107] Drawing 17 is an explanatory view of an example of the contents accumulating part 52 by the 2nd example of this invention. As shown in the figure, the contents accumulating part 52 is provided with the following.

Confirmation number field.

Contents name field.

Contents file field.

[0108] The download terminal 4 of the 2nd example of this invention. When a user connects user media to a download terminal and demands the download of contents by which the delivery request to print out files was made. By requiring delivery of contents from a request-to-print-out-files contents delivery center, contents are acquired and the acquired contents are copied to user media. Therefore, the download terminal 4 by the 2nd example does not need to possess the contents accumulating part provided in the download terminal by the 1st example.

[0109] What should be careful of here is the network 8 between the download terminal 4 and the request-to-print-out-files contents delivery center 5. It is that the effect that are a high-speed type network and the high-speed writing of contents is made to user media by this at the time of a contents receipt rather than the network 7 between the contents server 2 and the request-to-print-out-files contents delivery center 5 is acquired.

[0110] Drawing 18 is a message sequence chart explaining the operation at the time of a contents delivery request to print out files of the system by the 2nd example of this invention and contents delivery.

[0111] Contents selection of Step 101, connection of Step 102, contents specification of Step 103, reference-by-location profit of Step 104, and the content retrieval of Step 105. Since it is the same as Step 1 of the message sequence of the system by the 1st example of this invention explained with reference to drawing 11, Step 2, Step 3, Step 4, and Step 5 respectively, it does not explain any more.

[0112]If the contents request to print out files from a reservation terminal is received in Step 106a contents server will transmit the position information on a reservation terminal to a download terminal control center and will demand the information on the request-to-print-out-files contents delivery center in which contents delivery is possible on the outskirts of a position of a reservation terminal.

[0113]A download terminal control center will determine a request-to-print-out-files contents delivery center from the received position information in Step 107 if contents address-for-delivery information requirements are received. It is [operation / of a download terminal control center] under explanation and the deciding method of a request-to-print-out-files contents delivery center is mentioned later.

[0114]In Step 108a download terminal control center generates a confirmation number after performing contents address-for-delivery search at Step 107. As the 1st example was described a confirmation number may be a request-to-print-out-files identification number which consists of a meaning number etc. and the number generated from a serial number or time may be sufficient as it.

[0115]After determining the contents address for delivery at Step 107 and generating a confirmation number at Step 108a download terminal control center In Step 109 the address-for-delivery access information of the determined request-to-print-out-files contents delivery center download terminal installation place information and the generated reserved information are transmitted to a contents server.

[0116]In [if a contents server gains address-for-delivery access information installation place information and a confirmation number for the "contents address-for-delivery information" on Step 109] Step 110 The installation place information of a confirmation number and a download terminal is transmitted to a reservation terminal as "reserved information" and communication with a reservation terminal is ended at Step 111.

[0117]A reservation terminal will express this reserved information to the display for indication of an outputting part etc. as Step 112 if the reserved information which consists of installation place information of a confirmation number and a download terminal at Step 110 is acquired. Preferably a surrounding map may be displayed presenting of installation place information may be performed in a form which attaches a mark to the position which corresponds to the setting position of a download terminal on the map and the guidance map showing the course from the current position of a reservation terminal to the setting position of a download terminal may be used for it more preferably. or [for this reason / that a contents server transmits the map which generated the map including the setting position of a download terminal and was generated as installation place information of a download terminal to a reservation terminal] -- or A reservation terminal creates the surrounding map showing a setting position from the setting position of the download terminal acquired in form such as latitude longitude.

[0118]Next the address-for-delivery access information which is a connection

name of the request-to-print-out-files contents delivery center whose contents server is the address for delivery. If a confirmation number, the contents name of the contents to deliver, and a contents file are obtained, it will shift to a contents delivery stage and the contents containing a contents name and a contents file and a confirmation number will be transmitted to a request-to-print-out-files contents delivery center in Step 113.

[0119] A request-to-print-out-files contents delivery center saves the contents and the confirmation number which were received at Step 113 in Step 114 at a contents accumulating part.

[0120] Next operation of the system at the time of the contents receipt of the digital-contents request-to-print-out-files distribution system by the 2nd example of this invention is explained with reference to the message sequence chart shown in drawing 19.

[0121] In Step 121, a user connects user media to the download part of a download terminal with one download terminal in the download terminal specified as installation place information at the time of a request to print out files. When a user inputs a confirmation number via the input part of a download terminal in Step 122, a download terminal in Step 123 connects with a request-to-print-out-files contents delivery center using the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center set up and saved at the control section etc. a confirmation number is transmitted to a request-to-print-out-files contents delivery center and delivery of the contents corresponding to a confirmation number is required. Here, a priori, it is in the same area as a download terminal and the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center connected via the high-speed network is set up / saved at the control section of the download terminal.

[0122] In [if a request-to-print-out-files contents delivery center receives a contents request at Step 123] Step 124, the contents corresponding to the confirmation number received from the download terminal are searched from a contents accumulating part and the gained contents are transmitted to a download terminal at Step 125.

[0123] In Step 125, a download terminal receives contents from a request-to-print-out-files contents delivery center and writes them in the user media to which contents are connected in Step 126.

[0124] On the other hand, the request-to-print-out-files contents delivery center which transmitted contents to the download terminal deletes the record of the contents concerned from a contents accumulating part in Step 127.

[0125] The delivery request to print out files in the digital-contents request-to-print-out-files distribution system by the 2nd example of this invention, delivery and a receipt are performed by a series of above operations.

[0126] Drawing 20 is an operation flow chart of the contents server by the 2nd example of this invention.

[0127] At Step 131, a contents server stands by the connection from a reservation

terminal By "the contents name the position information / terminal ID acquisition" of Step 132 acquire after connection the contents name of the delivery booking object transmitted from the reservation terminal and depending on in addition the case. Terminal ID of a reservation terminal convertible into place information such as position information and latitude longitude which more specifically expresses the place of a reservation terminal or place information is acquired. A telephone number and an IP address etc. used as the key of a detecting position are included in terminal ID of a reservation terminal for example.

[0128] When it judges whether position information is included in the information transmitted from the reservation terminal and information convertible into position information such as terminal ID instead of the position information itself is received at Step 133 at Step 134 position information is acquired from terminal ID of a reservation terminal and it progresses to Step 135. When a reservation terminal is a general telephone set it can change into position information from terminal ID using the database holding the correspondence relation between a telephone number and position information. It is possible to acquire the position information on a base station by asking a position information center etc. the position of PHS when a reservation terminal is PHS. When a reservation terminal is an Internet terminal it can change into position information from terminal ID using the database holding the correspondence relation between an IP address and position information.

[0129] When position information is included in the information transmitted from the reservation terminal at Step 133 it progresses to Step 135 as it is.

[0130] A contents server searches corresponding contents (a contents name and a contents file) from a contents database by using the received contents name as a key in "content retrieval" of Step 135.

[0131] Next a contents server progresses to Step 136 and transmits the position information on a reservation terminal to a download terminal control center. The address-for-delivery access information, the installation place information of a download terminal and the confirmation number which are the connection names of the request-to-print-out-files contents delivery center used as the address for delivery of contents are received from a download terminal control center. The setting position (for example latitude longitude) of two or more download terminals corresponding to the request-to-print-out-files contents delivery center currently held in the download terminal control center may be sufficient as installation place information or the map containing all the download terminals corresponding to a request-to-print-out-files contents delivery center may be sufficient as it.

[0132] Next a contents server is Step 137 and if the setting position and confirmation number of a download terminal which were acquired are notified to a reservation terminal and a notice is completed he will cut communication with a reservation terminal at Step 138.

[0133] It connects with a request-to-print-out-files contents delivery center using the address-for-delivery access information which is the connection name which he followed to Step 139 and was acquired and a contents server delivers the

contents name and contents file for delivery to a request-to-print-out-files contents delivery center and ends processing.

[0134] Drawing 21 is an operation flow chart of the download terminal control center by the 2nd example of this invention.

[0135] A download terminal control center judges whether it is Step 141 and there are any contents address-for-delivery information requirements from a contents server and when judged with there being contents address-for-delivery information requirements it progresses to Step 142 and it receives the position information on a reservation terminal from a contents server.

[0136] Next a download terminal control center chooses a request-to-print-out-files contents delivery center in "contents address-for-delivery search" of Step 143 using the position information and the download terminal database of the reservation terminal received by the contents address-for-delivery selecting part. All the "download terminal setting positions" saved in the download terminal database as an example of selection of a request-to-print-out-files contents delivery center A slant range with the place obtained from the position information on a reservation terminal can be calculated and how a slant range chooses the request-to-print-out-files contents delivery center corresponding to the setting position which is the shortest can be considered. As the other method the range specified at an address or latitude longitude is held for every request-to-print-out-files contents delivery center and various methods such as choosing a request-to-print-out-files contents delivery center by which the place obtained from the position information on a reservation terminal is included in the range can be considered.

[0137] In Step 144 a download terminal control center generates the meaning number over this contents delivery request to print out files after selection of a request-to-print-out-files contents delivery center is completed next. The number generated as a meaning number combining the address-for-delivery access information of a serial number and time a contents name and a request-to-print-out-files contents delivery center etc. which are managed in a download terminal control center for example may be sufficient.

[0138] The address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center as which the download terminal control center was chosen in the following step 145 It notifies to a contents server that the generated confirmation number is the installation place information of all the download terminals corresponding to a request-to-print-out-files contents delivery center and processing is ended.

[0139] Drawing 22 is an operation flow chart of the request-to-print-out-files contents delivery center by the 2nd example of this invention.

[0140] In [when it judges whether the request-to-print-out-files contents delivery center had delivery of contents from the contents server in Step 151 and there is delivery of contents / progress to Step 152 and] the communications department It accumulates in a contents accumulating part by using as a new record the contents name contents file and confirmation number which received the

contents name, the contents file, and the confirmation number next were received by progressing to Step 153.

[0141] In Step 151, when judged with there having been no delivery from a contents server, it is judged whether the request-to-print-out-files contents delivery center progressed to Step 154 and had a contents request from the download terminal. A request-to-print-out-files contents delivery center returns from a download terminal to Step 151 when there is no contents request.

[0142] When judged with the contents request having occurred from the download terminal, a request-to-print-out-files contents delivery center progresses to Step 155 and acquires the confirmation number transmitted from a download terminal.

[0143] Next, in Step 156, a request-to-print-out-files contents delivery center searches the record containing the confirmation number acquired from the download terminal from a contents accumulating part and judges whether the record containing the confirmation number to compare was detected in Step 157. When a record is detected, a request-to-print-out-files contents delivery center transmits the contents file contained in the record searched by progressing to Step 158 to a download terminal and ends processing. In Step 157, when judged with the confirmation number to compare not having been detected, a request-to-print-out-files contents delivery center progresses to Step 159, transmits an error message to a download terminal, and ends processing.

[0144] Drawing 23 is an operation flow chart of the download terminal by the 2nd example of this invention.

[0145] A download terminal judges whether user media were connected in Step 161. When judged with user media having been connected at Step 161, processing progresses to Step 162, and the input of the confirmation number from the user through input part, such as a keyboard, is received. The confirmation number followed and inputted into Step 163 is transmitted to a request-to-print-out-files contents delivery center, and the contents corresponding to a confirmation number are required.

[0146] Next, a download terminal judges at Step 164 whether the error message was replied from the request-to-print-out-files contents delivery center. Since the contents corresponding to a confirmation number are not accumulated in a request-to-print-out-files contents delivery center when an error message is replied at Step 164, processing of a download terminal progresses to Step 165, performs the display of an error message, etc., and ends processing.

[0147] When an error message is not replied at Step 164, in the request-to-print-out-files contents delivery center, since the contents corresponding to a confirmation number are accumulated and the contents are transmitted from a request-to-print-out-files contents delivery center to a download terminal, in Step 166, the contents transmitted from a request-to-print-out-files contents delivery center are written in the user media connected, and a series of processings are ended.

[0148] Next, drawing 24 is a digital-contents request-to-print-out-files distribution system line block diagram by the 3rd example of this invention. In this example, the

request-to-print-out-files contents delivery center which is the contents address for delivery from a contents server is chosen using the area information inputted with the reservation terminal instead of the position information showing the place of the reservation terminal in the 2nd example.

[0149]Although the digital-contents request-to-print-out-files distribution system by the 3rd example of this invention shown in drawing 24 is similar with the digital-contents request-to-print-out-files distribution system by the 2nd example of this invention shown in drawing 15Only the point that the position detector 13 which detects the position of reservation terminal 1 the very thing is removed from the reservation terminal 1 is different. Since it is the same as that of the 2nd example described with reference to drawing 15other composition is not explained any more.

[0150]Drawing 25 is a message sequence chart of the system by the 3rd example of this invention. The operation at the time of a request to print out files of the system by the 3rd example and delivery is shown in the figure. The operation at the time of delivery of the system by the 3rd example and a receipt is the same as operation of the system by the 2nd example.

[0151]In "contents selection" of Step 201the user who reserves contents delivery specifies the contents reserved using the input part of a reservation terminaland specifies the area which receives contents in Step 202. Contents may be specified that a user inputs a contents name by a keyboard etc.or by choosing it as beforehand from the list of contents names acquired with the reservation terminal. or [that a user inputs an area name by a keyboard etc. also in a receipt area] -- orThe reservation terminal acquires the list which consists of a value of the area name field of the download terminal database of a download terminal control center a prioriand it may be specified when a user chooses from this displayed list.

[0152]Nexta reservation terminal is connected to a contents server at Step 203. When reservation terminals are telephonessuch as a portable telephonePHSa public telephoneand a general telephone setconnectionIt realizes by carrying out call origination to a contents server's telephone numberand when a reservation terminal is an Internet terminalit accesses using a contents server's server namean IP addressetc.

[0153]If a contents server is connected with a reservation terminala contents name and recipient region information will be transmitted to a contents server from a reservation terminal by "contents specification (recipient region information)" of Step 204.

[0154]In "content retrieval" of the step 205 after "contents specification" was performed from the reservation terminal for the contents serverThe content size and the contents file corresponding to the contents name are searched from a contents database by using as a key the contents name received by "contents specification."

[0155]Nextin Step 206a contents server transmits the recipient region information received from the reservation terminal to a download terminal control centerand demands the information on the request-to-print-out-files contents delivery

center which is the contents address for delivery.

[0156]In Step 207a download terminal control center will choose a request-to-print-out-files contents delivery center using the recipient region information and download terminal database which the contents address-for-delivery selecting part receivedif contents address-for-delivery information requirements are received. As an example of selection of a request-to-print-out-files contents delivery centerout of the "area name" saved in the download terminal database. How to search the record which is in agreement with the recipient region information received from the contents serverand to choose the request-to-print-out-files contents delivery center corresponding to the searched record can be considered. As the other methodsthe range specified at an address or latitude longitude is held for every request-to-print-out-files contents delivery centerand various methodssuch as choosing a request-to-print-out-files contents delivery center by which the place obtained from the position information on a reservation terminal is included in the rangecan be considered.

[0157]Steps 208209210211212213and 214 of the message sequence by the 3rd example of this inventionRespectivelysince it is the same as Steps 108109110111112113and 114 of the message sequence by the 2nd example of this inventionexplanation beyond this is not given here.

[0158]Operation of the reservation terminal by the 3rd example of this inventiona contents servera download terminal control centera request-to-print-out-files contents distribution systemand a download terminalExcept for the point that the position information on a reservation terminal is replaced by recipient region informationand the point that the contents address-for-delivery search method in a download terminal control center is replaced like Step 207since it is the same as operation of each component by the 2nd example of this inventionexplanation beyond this is not given here.

[0159]The common effect acquired by the 1st example of the above this inventionthe 2nd exampleand the 3rd example is as follows.

[0160](1) The contents delivery to a nearby place from a subscriber's address is attained.

[0161](2) It becomes downloadable [the contents in anonymity].

[0162](3) There is no necessity that the user itself prepares the line facility for downloadetc.and it is not occupied for download of a user's circuit.

[0163](4) By pinpointing a distribution placethe payment by the cash of the charge of contents becomes possibleand it can charge easily.

[0164]Since especially the user can receive contents only using the confirmation number notified at the time of a request to print out fileshe can secure a user's anonymity.

[0165]On the other handin the 4th example of this invention explained belowa user specifies user ID at the time of a contents delivery request to print out filesand specifies user ID also at the time of a contents receipt. Therebya user's specification and a subscriber's collation are performed.

[0166]Drawing 26 is a digital-contents request-to-print-out-files distribution

system lineblock diagram by the 4th example of this invention. As shown in the figure the system of this example is constituted by the reservation terminal 1 the contents server 2 the download terminal control center 3 the request-to-print-out-files contents distribution system 5 installed for every area two or more download terminals 4 and the user media 9. One area is shown by the solid line 100 in the figure. Although the system configuration by the 4th example of this invention is similar with the system configuration by the 2nd example of this invention it differs from the system configuration of the 2nd example in that the contents server 2 possesses the user database 25.

[0167] Drawing 27 is an explanatory view of an example of the user database by the 4th example of this invention. A user database is constituted by a user ID field and the password field and to user ID. The identification number decided to be a meaning for every user is registered and the password for collation set up for every user ID for checking user ID is registered into the password.

[0168] Drawing 28 is an explanatory view of an example of the contents accumulating part by the 4th example of this invention. As shown in the figure the contents accumulating part 52 includes user ID a password a contents name and the field that carries out contents file preservation. ID peculiar to the user whom the user who reserved delivery of corresponding contents specified as the user ID field is stored and this user ID corresponds to the user ID registered into the user database.

[0169] Drawing 29 is a message sequence chart at the time of a contents delivery request to print out files of the system by the 4th example of this invention and contents delivery.

[0170] In "contents selection" of Step 301 the user who reserves contents delivery specifies the contents reserved using the input part of a reservation terminal and enters user ID and a password in Step 302 using the keyboard of an input part etc. Contents may be specified that a user inputs a contents name by a keyboard etc. or by choosing it as beforehand from the list of contents names acquired with the reservation terminal.

[0171] Next a reservation terminal is connected to a contents server at Step 303. When reservation terminals are telephones such as a portable telephone PHS a public telephone and a general telephone set connection it realizes by carrying out call origination to a contents server's telephone number and when a reservation terminal is an Internet terminal it accesses using a contents server's server name an IP address etc.

[0172] If a contents server is connected with a reservation terminal in Step 304 a contents name user ID and a password will be transmitted to a contents server from a reservation terminal. When a reservation terminal performs a detecting position independently or when reservation terminals are built-in ends such as a public telephone and an Internet terminal and position information is held to the position detector The position information detected with the reservation terminal or the position information currently held is simultaneously transmitted to a contents server from a reservation terminal in Step 304. Like the general

telephone set and PHS terminal with which a reservation terminal performs the notice of a sender number when the detecting position of a reservation terminal can be performed by the contents server side. Position information is not transmitted to a contents server from a reservation terminal but terminal ID (for example, ID used as the key of a detecting position such as an electric field number and an IP address) of a reservation terminal is instead told by the notice of a sender number etc. to a contents server.

[0173] If a contents server is performed [contents specification] from a reservation terminal at Step 304 in order that it may inspect whether the user of the reservation terminal side which performed contents specification is registered in Step 305, it is investigated whether the user ID which received and a password are saved in the user database. When the user ID and the password which are in agreement with the user ID which received and a password at this time do not exist in a user database, a contents server replies error information to a reservation terminal and ends processing.

[0174] When the user ID and the password which are in agreement with the user ID which received and a password exist in a user database, a contents server acquires the position information on a reservation terminal in Step 306. When a contents server uses the received position information as it was when position information is received from a reservation terminal and terminal ID is received, position information is detected from the telephone number etc. of the reservation terminal gained by the notice of a sender number etc.

[0175] Next, a contents server searches the content size and the contents file corresponding to the contents name from a contents database in Step 307 by using as a key the contents name received by "contents specification" of Step 304.

[0176] After a contents server searches contents in Step 308, he transmits the position information on a reservation terminal to a download terminal control center and demands the information on the request-to-print-out-files contents delivery center in which contents delivery is possible on the outskirts of a position of a reservation terminal.

[0177] A download terminal control center will determine a request-to-print-out-files contents delivery center from the received position information in Step 309 if contents address-for-delivery information requirements are received. It is as having already explained the deciding method of the request-to-print-out-files contents delivery center about the 2nd example of this invention.

[0178] Since user ID can be used in order to specify contents when a user receives contents in the case of the 4th example of this invention, the download terminal control center does not need to generate a confirmation number.

[0179] After determining the contents address for delivery at Step 309, a download terminal control center transmits the address-for-delivery access information and download terminal installation place information of a request-to-print-out-files contents delivery center which were determined to a contents server in Step 310.

[0180] If address-for-delivery access information and installation place information

are acquired for the "contents address-for-delivery information" on Step 310 in Step 311 a contents server will transmit the installation place information of a download terminal to a reservation terminal as "reserved information" and will end communication with a reservation terminal at Step 312.

[0181] A reservation terminal will express this reserved information to the display for indication of an outputting part etc. as Step 313 if the reserved information which consists of installation place information of a download terminal at Step 311 is acquired. Preferably a surrounding map may be displayed presenting of installation place information may be performed in a form which attaches a mark to the position which corresponds to the setting position of a download terminal on the map and the guidance map showing the course from the current position of a reservation terminal to the setting position of a download terminal may be used for it more preferably. or [for this reason/ that a contents server transmits the map which generated the map including the setting position of a download terminal and was generated as installation place information of a download terminal to a reservation terminal] -- or A reservation terminal creates the surrounding map showing a setting position from the setting position of the download terminal acquired in form such as latitude longitude.

[0182] Next the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center whose contents server is the address for delivery In [if the contents name of the contents to deliver a contents file and a subscriber's user ID and password are obtained will shift to a contents delivery stage and] Step 314 The contents containing a contents name and a contents file user ID and a password are transmitted to a request-to-print-out-files contents delivery center.

[0183] A request-to-print-out-files contents delivery center newly saves the contents the user ID and the password which were received at Step 314 in Step 315 at a contents accumulating part.

[0184] Drawing 30 is a message sequence chart at the time of the contents receipt of the system by the 4th example of this invention.

[0185] In Step 321 a user connects user media to the download part of a download terminal with one download terminal in the download terminal specified as installation place information at the time of a request to print out files. When a user enters user ID and a password via the input part of a download terminal in Step 322 a download terminal it connects with a request-to-print-out-files contents delivery center using the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center set up and saved in Step 323 at the control section etc. User ID and a password are transmitted to a request-to-print-out-files contents delivery center and delivery of the contents corresponding to user ID is required. Here a priori it is in the same area as a download terminal and the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center connected via the high-speed network is set up / saved at the control section of the download terminal.

[0186]In [if a request-to-print-out-files contents delivery center receives a contents request at Step 323] Step 124The contents corresponding to the user ID and the password which were received from the download terminal are searched from a contents accumulating partand the gained contents are transmitted to a download terminal at Step 325.

[0187]A download terminal is written in the user media to which the contents which received contents and were received from the request-to-print-out-files contents delivery center in Step 326 are connected in Step 325.

[0188]On the other handthe request-to-print-out-files contents delivery center which transmitted contents to the download terminal deletes the record of the contents concerned from a contents accumulating part in Step 327.

[0189]The delivery request to print out files in the digital-contents request-to-print-out-files distribution system by the 4th example of this inventiondeliveryand a receipt are performed by a series of above operations. Thussince the user who performs a delivery request to print out files of contents by the contents server side can be specified according to the 4th example of this inventionIt limits to the user who contracted and it becomes possible to provide service or to charge the price according to the delivered contents with prepaid onea creditetc.

[0190]Thereforethe effect acquired by the 4th example of this invention is as follows.

[0191](1) The contents delivery to a nearby place from a subscriber's address is attained.

[0192](2) The user who receives service of contents download can be specified.

[0193](3) There is no necessity that the user itself prepares the line facility for downloadetc.and it is not occupied for download of a user's circuit.

[0194](4) By pinpointing a user and a distribution placethe payment by the cash of the charge of contents becomes possibleand it can charge easily.

[0195]Effect 8: Originator information can be notified by exchange network undepending from the composition 5.

[0196]The digital-contents request-to-print-out-files distribution system by the example of above-mentioned this inventionWithout being limited to the example explained in the above-mentioned example The I/O device in a systemThe portion except hardware portionssuch as CPU of a communication deviceuser mediaand a computerand a memoryIt is also possible to build by the software (program) which realizes an equivalent functionto record on the disk unit etc.and to install in a computer if neededor to download to a computer via a networkand to perform digital-contents request-to-print-out-files distribution service. It is also possible to store the built program in portable recording mediasuch as a floppy (registered trademark) disk a memory cardand CD-ROMand to use it general-purpose in the scene using such service.

[0197]As mentioned abovealthough the typical example of this invention was describedchange and application are variously possible for this invention in a claimwithout being limited to the above-mentioned example.

[0198]

[Effect of the Invention]As explained aboveaccording to this inventionwith the reservation terminals (for examplePHSthe portable telephone in which detect positions are possiblethe general telephone set in which the notice of a sender number is possiblea public telephone with position informationetc.) in which position information detection is possible. As for the user who reserved by reserving contents downloadit becomes possible to receive mass digital contents from a user's address at a nearby placewithout [without the user itself prepares a mass circuitand] occupying a user's own circuit.

[0199]The user can receive now the digital contents of large scale [place where one has gone].

[0200]At the time of a contents receipta user does not have the necessity of standing by in front of a download terminal until download is completedand when requiredhe can receive contents promptly.

[0201]In a reservation terminalit becomes possible to receive mass contents promptly at the place (for exampleplanned destination site) which a user wisheswhen required by pinpointing the area to download and reserving download of contents.

[0202]Since the receipt place of contents is pinpointedthe payment by the cashthe cardetc. of the charge of contents becomes easy.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1]It is a principle lineblock diagram of this invention.

[Drawing 2]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 3]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 4]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 5]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 6]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 7]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 1st example of this invention.

[Drawing 8]It is an explanatory view of an example of the structure of the contents database by the 1st example of this invention.

[Drawing 9]It is an explanatory view of an example of the structure of the download terminal database by the 1st example of this invention.

[Drawing 10]It is an explanatory view of an example of the structure of the contents accumulating part by the 1st example of this invention.

[Drawing 11]It is a message sequence chart of the system by the 1st example of

this invention.

[Drawing 12]It is an operation flow chart of the contents server by the 1st example of this invention.

[Drawing 13]It is an operation flow chart of the download terminal control center by the 1st example of this invention.

[Drawing 14]It is an operation flow chart of the download terminal by the 1st example of this invention.

[Drawing 15]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 2nd example of this invention.

[Drawing 16]It is an explanatory view of an example of the download terminal database by the 2nd example of this invention.

[Drawing 17]It is an explanatory view of an example of the contents accumulating part by the 2nd example of this invention.

[Drawing 18]It is a message sequence chart at the time of a contents delivery request to print out files of the system by the 2nd example of this inventionand contents delivery.

[Drawing 19]It is a message sequence chart at the time of the contents receipt of the system by the 2nd example of this invention.

[Drawing 20]It is an operation flow chart of the contents server by the 2nd example of this invention.

[Drawing 21]It is an operation flow chart of the download terminal control center by the 2nd example of this invention.

[Drawing 22]It is an operation flow chart of the request-to-print-out-files contents delivery center by the 2nd example of this invention.

[Drawing 23]It is an operation flow chart of the download terminal by the 2nd example of this invention.

[Drawing 24]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 3rd example of this invention.

[Drawing 25]It is a message sequence chart of the system by the 3rd example of this invention.

[Drawing 26]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 4th example of this invention.

[Drawing 27]It is an explanatory view of an example of the user database by the 4th example of this invention.

[Drawing 28]It is an explanatory view of an example of the contents accumulating part by the 4th example of this invention.

[Drawing 29]It is a message sequence chart at the time of a contents delivery request to print out files of the system by the 4th example of this inventionand contents delivery.

[Drawing 30]It is a message sequence chart at the time of the contents receipt of the system by the 4th example of this invention.

[Description of Notations]

1 Reservation terminal

2 Contents server

3 Download terminal control center
4 Download terminal
6 and 7 Communications network
11 Request-to-print-out-files application information input means
12 Reservation acceptance information output means
13 Position information acquiring means
14 The 1st means of communication
21 The 2nd means of communication
22 Reservation acceptance processing means
23 Contents address-for-delivery acquisition means
24 The 3rd means of communication
25 Contents database
26 Contents delivering means
31 The 4th means of communication
32 Contents address-for-delivery selecting means
33 Download terminal database
41 Reservation confirmation information input means
42 Contents download means
43 The 5th means of communication
44 Contents storage means
